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Forestry, Wildlife, and Fisheries

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Department of Forestry, Wildlife and Fisheries

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FWF Update Newsletter

Department of Forestry, Wildlife and Fisheries

January 2009

Dr. Keith Belli, Department Head

Website: <http://fwf.ag.utk.edu>

IN THIS ISSUE

Timber Tax Tips	page 1
Wildlife Management Calendar	page 2
What is a “Cull” Buck?	page 5
Why Do Some Bareroot Seedlings Die?	page 6
Trees - - A Growing Green Legacy	page 7
If Growing a Green Legacy is Such a Great Idea, Why Aren't More People Doing It?	Page 8
Wood Fuel is Cost Effective	page 9
FWF Departmental Directory	page 10

Timber Tax Tips

Larry Tankersley, Extension Forester

If you sold timber last year remember to file the proceeds as a capital gain rather than as ordinary income. Long term capital gains are taxed at lower rates; this helps you keep more of your money. This year the lowest rate on long-term capital gains is 0%. You definitely want to look into that.

Depending on how your timber was cut, you might have prepared the site and replanted. If this is the case don't forget Reforestation Tax Incentives, when you file. Qualified reforestation expenditures include site preparation costs, seedlings and expenses to get the trees planted. Expenditures up to \$10,000 can be deducted directly from you income. Amounts over \$10,000 can be amortized over the next eight tax years. Amortization gives you another opportunity to reduce your income for tax purposes. Its important to begin your amortization the year, you spend the money as this tax incentive can't be started on an amended return. If you started an amortization in years past, don't forget to take your deduction this year.

Many folks receive cost-sharing from the government, when conducting operations in their forests. If you receive cost-sharing it's important to determine whether you can exclude the total amount or some portion of the amount from your income, otherwise you are required to pay taxes on the amount you receive. If you get a form 1099-GOV for the cost-sharing, as with other 1099's, don't lose it. The IRS got a copy too and they'll be in touch if you don't account for the amounts listed.

Persons who sustained tree destruction from wind, flood, ice, or other involuntary conversion are allowed to claim losses up to the value of their adjusted basis in the timber that was damaged. You do need to document when the damage occurred and that you tried to salvage the timber. If you need help understanding “adjusted basis” ask your county agent for UT Extension publication 1691, “*Settin' up the Books,...*”.

Don't forget that Linda Wang and John Greene of the U. S. Forest Service produced the annual, *Tax Tips for Forest Landowners* available at the following website:

<http://www.timbertax.org/publications/FS/taxtips/TaxTips08.pdf>

Wildlife Management Calendar for February

Craig Harper, Professor, Wildlife Management

Habitat Management

It's time to burn – get out the drip torch!

Burn woods and old-fields using prescribed fire to enhance conditions for wildlife

- secure burning permit and develop burning plan with Tennessee Division of Forestry
- make sure firebreaks are in place
- get help from experienced personnel if you don't have experience burning
- burning fields is **much** more beneficial for wildlife than mowing!
- refer to Chapter 6 in *Native Warm-Season Grasses: Identification, Establishment, and Management for Wildlife and Forage Production in the Mid-South*, PB 1752, for additional information on managing early successional habitats

Plant firebreaks for additional forage, seed, bugging opportunities

- alfalfa, clovers, and annual lespedezas can be planted in mid- to late February
- warm-season plantings can be made later in May
- see *A Guide to Successful Wildlife Food Plots: Blending Science with Common Sense*, PB 1769, for seeding rates and additional information

If you won't burn, do not mow or disk old-fields yet – wildlife need the cover for another month!

Disk fields to encourage early successional growth

- disk one-third of the field in a block or strips
- strips should be at least 2 tractor-widths wide (12 – 15 feet)

Plant trees/shrubs for wildlife

- establish hedgerows across fields with soft-mast bearing trees and shrubs
- hedgerows can be used to break-up fields into sections
- also plant trees/shrubs in blocks at end of fields or in “odd” areas
- apple, crabapple, persimmon, wild plum, elderberry are good choices
- refer to *Improving Your Backyard Wildlife Habitat*, for a list of other trees and shrubs to consider

Fertilize/prune trees/shrubs for increased soft mast production

- this is for trees out in the open, not those in woods
- fertilizing oaks in woods is a waste of time and money; to increase mast potential for trees in the woods, refer to TSI activities

Erect boxes for wood ducks and bluebirds

- 1 box per 100 yards of shoreline is adequate for wood ducks
- clean out old wood duck boxes and replenish fresh wood shavings (about 4 – 6 inches)
- screech owls and squirrels may use the boxes through winter
- repair/install predator shields to guard against raccoons and snakes if necessary
- in Tennessee, wood ducks may begin searching for nest sites in February / March
- bluebird boxes should be no closer than 80 yards apart
- up to 9 or more bluebirds may roost in a single bluebird box on cold nights

Finish Timber Stand Improvement activities

- stimulate growth among oaks, beech, cherry, persimmon, and other mast producers by killing surrounding competitors
- girdle unwanted trees and spray wound with a mixture of Garlon and Arsenal AC
- use 2 quarts Garlon 3A and 25 ounces Arsenal AC filled to 1 gallon of water
- work should be finished for the season this month – any later and herbicide effectiveness will be reduced as sap begins to flow

Build brushpiles

- put large stems on bottom, small stems on top
- building brushpiles along a woods edge adjacent to a tall fescue pasture or hayfield may do more damage than good because all rabbits present will then be isolated for predation

Keep bird feeders full

- black-oil sunflowers are a favorite of many birds
- thistle seed is preferred by goldfinches
- suet provides energy for lots of birds during winter
- refer to *Improving Your Backyard Wildlife Habitat*, for information on specific feeders and seed for birds

Continue strip-mowing or silage chopping grain fields to provide seed for wildlife

Native warm-season grasses can be planted during the dormant season

- don't plant too deep – no more than ¼ inch!
- don't forget preemergence weed control in April; it is critical!
- Refer to [*Chapter 5 in Native Warm-Season Grasses: Identification, Establishment, and Management for Wildlife and Forage Production in the Mid-South*](#), PB 1752, for additional information

Plant perennial clover and alfalfa plots

- ladino white clover, alsike clover, red clover, and alfalfa do well when sown in mid- to late February
- refer to [*A Guide to Successful Wildlife Food Plots: Blending Science with Common Sense*](#), PB 1769, for information on planting and soil amendment
-

Spray weeds in cool-season food plots before the weeds get too large

- most cool-season weeds are best killed when sprayed before they reach 3 – 5 inches tall
- refer to [*A Guide to Successful Wildlife Food Plots: Blending Science with Common Sense*](#), PB 1769, for herbicide recommendations
- always read and follow directions on the herbicide label before using

Fertilize cool-season forage plots

- those containing oats, wheat, and/or cereal rye will respond to 30 pounds of N per acre
- fertilize perennial forage plots with P and K according to soil test recommendations

Collect soil test samples from plots to be planted this fall and lime now as needed

- applications of lime require about 6 months before full effect on pH is realized

Begin drawdown of fields flooded for waterfowl

Wildlife Damage/Population Management

Skunks are on the move

- skunks mate in February and March

Close crawl spaces under the house and check for openings in the attic

- helps keep snakes, skunks, and squirrels from getting into places where they are not welcome

Set traps correctly to catch moles!

- make sure runway (tunnel) is active before setting traps
- excavate 6-inch by 6-inch square exposing runway and determine exact depth of runway
- replace dirt firmly, but not compacted
- set trap at exact depth so mole will be caught

Repel large winter flocks of blackbirds and starlings

- don't allow them to roost in your trees; if they start, they'll form a habit
- repel them with noise makers (shotguns, firecrackers, banging metal pans together)
- be persistent; you will have to scare them off at least 5 or 6 nights in a row before breaking their habit

Vultures can present a real problem for calving by plucking out eyes and eventually killing calves

- try scare tactics as soon as vultures appear during calving season
- contact USDA-Wildlife Services if problems continue; they can give you a referral to the US Fish and Wildlife Service for depredation permit if warranted

Refer to *Managing Nuisance Animals and Associated Damage Around the Home* for additional information

What is a “Cull” Buck?

Craig Harper, Professor, Wildlife Management

Tennessee deer hunters now kill more deer annually than at any time in history. With a burgeoning deer population, it is no longer a real challenge for most hunters to merely kill a deer. Most hunters today yearn for big bucks—“trophy bucks”—and a hunting experience that mimics those seen on cable television hunting shows. Unfortunately, many of those shows have portrayed misconceptions and fostered unrealistic expectations for many hunters. Terms such as “cull buck,” “management buck,” and “trophy buck” are bantered about as if every viewer is able to distinguish them for removal from the population with precision. Sometimes, no, *usually*, it is evident those on TV do not understand these terms either. This has caused much confusion among hunters who are often trying to practice Quality Deer Management.

The terms “cull buck,” “management buck,” and “trophy buck” were first used (and still are) on large ranches in Texas where deer herds are managed to produce an abundance of fully mature bucks (5 – 8 years old), many of which may grow large enough to qualify for the **Boone & Crockett Club’s Big Game Records Book**. On most of these ranches, deer hunting is fee-based. That is, hunters pay a handsome amount to hunt, and often an additional fee is charged if a buck is killed. The price usually varies per size of the buck.

By definition, “management bucks” and “trophy bucks” are **mature animals** differentiated only by antler size. Neither is taken before the buck is at least 5, and usually 6, years old. For example, a 6-year-old buck that measures (or scores) 145 B&C inches would be considered a “management buck,” and the cost of killing this buck would be much less than a 6-year-old buck that scores 180 B&C inches, which would be considered a “trophy buck.”

A “cull buck” is one that does not meet certain antler criteria within a specific age class. For example, on King Ranch, Kingsville, TX, a “cull buck” is defined as any buck with at least one unbranched antler, any buck ≥ 3 years old with 7 or fewer antler points, any buck ≥ 4 years old with 8 or fewer antler points, and any buck ≥ 5 years old that scores under 130 B&C inches. Age of live deer is estimated based on body characteristics. These criteria are used because bucks that meet these criteria have virtually no chance of developing antlers large enough to qualify for B&C. **These criteria are maintained on King Ranch to provide more hunting recreation, not to influence genetics.**

Prior to implementing these criteria, hunters on King Ranch harvested 300 bucks annually, nearly all of which were considered “trophy-class.” Now, with the culling criteria in place, 1,000 – 1,500 bucks are harvested annually. That is, nearly 80% of the bucks killed are considered “culls.” **The removal of these bucks, however, has not influenced the number of trophy-class animals in the population.** And after an intensive 10-year research project where hunters and managers worked intensively to remove all “cull bucks” as possible on a 10,000-acre area of the King Ranch, culling produced no change in average antler characteristics by age class. This is very pertinent for landowners and hunters on small or large properties.

This research has shown hunters should **not** try to cull bucks with what are deemed undesirable antler characteristics (such as spikes, forkhorns, and “scrub bucks”) in an effort to influence antler characteristics within a given area. Research has also shown yearling bucks with relatively small antlers produce racks the vast majority of hunters would be proud of by the time the deer reach 3 or 4 years old (100 – 130 B&C inches or more). Those bucks may not produce antlers that would qualify for the B&C Record Book, but they are being shot well before they would produce their largest set of antlers (6 or 7 years old) anyway.

Instead of worrying about genetics, hunters interested in larger bucks should allow all bucks to reach at least 3 years of age before harvest. No buck can express his genetic potential until he reaches maturity with adequate nutrition. Every animal is unique and should be viewed with respect. Every mature buck should be viewed as a “trophy.” Age should be regarded more highly by hunters than antler dimensions.

Why do Some Bareroot Seedlings Die?

David Mercker, Extension Specialist I, Forestry

Many thousands of tree seedlings are planted each year in Tennessee – some as part of large scale forest management projects - others in urban or yard settings. Typically the easiest and therefore least expensive seedlings to plant are those that are bareroot. Bareroot seedlings are devoid of any attached soil. Once planted, landowners and homeowners sometimes are discouraged over the less-than-favorable survival. Below is a brief summary of why bareroot tree seedlings might perish. These reasons apply regardless of the intended purpose of planting or the location of planting.

Care – Seedlings are living, growing organisms, even if they are dormant at the time of arrival. If not properly protected during transport from the nursery to planting site and during the planting operation, they can die. The most common problems are over-heating or desiccation. In some cases, without proper care, they may already be dead by the time of planting.

Inadequate Planting Depth – Young seedlings should be planted slightly deeper than the depth previously planted at the nursery (note this is not the case with larger balled and burlap trees). Normally the original planting depth will be apparent by the appearance of a root collar. The root collar is a slight swelling where the above ground portion previously met the soil line.

Planted too Late – throughout our region, the tree planting season for bareroot seedlings is preferably January - March. Early planting allows time for the soil to settle (closure of air pockets) as well as initiation of root development prior to warmer temperatures. It is well documented that survival declines as planting date is delayed.

Precipitation Throughout the Growing Season – moisture is vital for all vegetative life, but it is critical for new plantings. Unlike established trees, newly planted seedlings will not have developed expansive root systems capable of seeking and finding scarce sources of water.

Excessive Root Damage – In the lifting, processing and planting of seedlings, roots can be accidentally torn or intentionally pruned (to make planting easier). This is not desirable. Before a seedling can grow, it must have a functioning root system to supply moisture and nutrients to the top. Damaging roots hinders this process.

Wildlife and Insect Damage – The energy stored in trees is a potential source of nourishment for wildlife and insects. Sometimes damage is minimal, such as removal of a few leaves or buds, other times it can be substantial. Feeding occurs in three regions: the growing (expanding) points, the cambium (located just beneath the bark), and below ground in the roots.

The death of tree seedlings occurs from a variety of reasons, and those reasons are not always apparent. Yet in most cases, with a little detective work, the cause of mortality can become evident. And more often than not, the leading cause of mortality is water-related. For additional information on the proper tree planting procedure, see:

<http://www.utextension.utk.edu/publications/spfiles/SP663.pdf>

Trees --- A Growing Green Legacy

Wayne K. Clatterbuck, Professor, Forest Management & Silviculture

Trees are a good green investment in three ways.

1. Trees are green in color during the growing season and they are a pleasure to watch grow. Most people who are in the business of growing trees are not doing it because there are great short-term profits to be made. If you do not enjoy the business, growing trees is not for you. There are easier, less risky investments available.
2. Trees are a socially responsible investment. Relative to most investments, the business of growing and harvesting trees is a non-polluting activity. It is also non-exploitive of both natural and human resources. Trees are a renewable resource. Society greatly benefits from the amenity benefits of growing trees. Forests are highly preferred locations for recreational activities, from viewing to hiking to hunting. Trees are the preferred land cover for providing clean water for an expanding human population.
3. Trees can be a financially profitable investment for landowners and an excellent, stable, long-term economic asset for families and communities.

Although the first two reasons for investing in the business of growing trees are at least as important as the third, the focus of this article will be on the financial aspects of tree-growing investments for individuals and families interested in transferring assets from one generation to the next.

Growing trees is financially attractive because:

The increase in value of trees from price increases and growth in diameter, volume, and grade is tax deferred. Trees do not send annual 1099's to the IRS. The landowner does pay annual property taxes, but the income from the eventual sale of timber usually qualifies for capital gains treatment when the timber is harvested. For most landowners, the capital gains rate is more favorable than their ordinary income rate.

Investing in growing trees is an excellent opportunity to transfer wealth from one generation to the next, using the following strategy. The older generation (with the capital) purchases the asset (forestland) and invests in the development of that asset. After developmental investments (reforestation or release of crop trees), the asset is given or willed to the younger generation. At the time of inter-generation transfer, the asset is only of modest value. As the trees grow, they increase in value in the ownership of the second generation. Any capital gain on that growth is deferred until the time of sale of the timber.

Investors who grow tree usually use one of two approaches for absorbing the costs of growing trees to profitable size.

The **long-term approach** is used by investors who are conservative with cash outlays. They purchase land, pay the taxes, minimize management costs, avoid labor costs and hope something worthwhile grows on their land. If it does, they harvest it as cheaply as possible while meeting requirements of soil and water protection. There are no significant investments aimed at accelerating growth of individual trees, or to increase the number of high-value trees per acre, more or less a laissez-faire approach. Consequently, trees grow at whatever rate the site and competitive vegetation permit without manipulation.

This approach spreads the cost of growing trees to given size over a longer period of time than the short-term approach described below. Investment costs are paid in the form of more property taxes and land holding expenses per unit of volume produced. The risk of loss because of damaging agents such as drought, ice, wind, fire, insects and disease is also greater because the asset is exposed for a greater length of time.

The **short-term approach** is used by investors (private landowners and corporations) who appreciate the time value of capital where the length of time for achieving the desired product size is shorter. Investments in land holding costs, property taxes, and administrative expenses are minimized per unit volume produced. This is usually accomplished by increasing the number of crop trees per acres (maximizing growing space) and accelerating the growth of those crop trees through management activities, usually through planting and thinning. A greater volume of high-value product is produced in a shorter time period.

The primary disadvantage of the short-term approach is that it requires more up-front capital. It is a more proactive course of action with more treatments that must be directed by management. On the better productivity sites, this approach provides a more cost-effective alternative, thus greater monetary returns than the longer term, laissez faire approach.

For most family forest landowners who want to make intergenerational transfer of assets, the short-term approach is the logical strategy. The older generation with capital can make the investments and the younger generation receives the benefit.

If Growing a Green Legacy is Such a Great Idea, Why Aren't More People Doing It?

Wayne K. Clatterbuck, Professor, Forest Management & Silviculture

1. **Awareness.** Most people with capital who want to transfer value/assets to the next generation are not aware that investing in growing trees can be an attractive method to accomplish their goals.
2. **Knowledge and Interest.** Most potential investors do not have the interest in acquiring the knowledge or skills to make good forest management investment choices.
3. **Attractive Alternatives.** The competition for investment capital in the marketplace is intense.
4. **Non-typical Return-on Investment Periods.** Timber management investments are long-term, usually approaching 10 to 50 years with little, if any intermediate returns. These investment time periods are common when growing trees. Financial investment managers often quickly reject long-term timber management investments.
5. **Risk.** All long-term investments involve greater risk. Some risks associated with timber management are drought, ice, insect damage, disease, fire and market changes.
6. **Focus.** The long-term investment goal requires self-discipline to refrain from the temptation of chasing shorter term, highly volatile investments.

In summary, to use the business of growing trees as a means of transferring assets from generation to generation, the investor accepts the following.

Society recognizes that managed forests where trees are not only grown, but harvested produce social and economic benefits for communities as well as individuals. Society and investors agree that growing and harvesting trees is a green activity, trees are a renewable resource, and trees are assets that can be valuable and transferred to others.

A premium price will be paid for high-quality sawtimber and veneer products. While prices may fluctuate, over a long period of time there will be good opportunities to sell highly valued products at a price that will make the return on investment acceptable.

Investors (landowners) and their heirs have sufficient capital to sustain a long-term investment with a potential extended period of little or no intermediate returns. Property taxes, management fees, labor costs, equipment purchases, materials and supplies are absorbed with the anticipation of future return.

Landowners and their heirs have the tenacity to handle the rigors of a long-term investment that incrementally increases in value. Not all people are willing to wait for an asset to mature. Some are impatient. Others are worried about investment performance. Investors with a long term perspective have confidence in the future that their assets (trees) will eventually be worthwhile for someone.

Adapted from: Forest Management Update, Number 19, April 1999, USDA Forest Service, Northeastern Area State and Private Forestry

Wood Fuel is Cost Effective

Adam Taylor, Assistant Professor, Forest Products

We use wood for many things but it may surprise you to know that most wood cut in the world (about 53%) is used as a fuel for heating and cooking. In the United States we use wood more for paper and building products but even here wood is still an important source of energy. In fact, the primary wood products industry (dry kilns, pulp and paper mills, etc.) get about 70% of their processing energy from burning wood residues (chips, bark, wood pulping byproducts). This makes the wood industry the only major industry that I can think of that is running on biofuel.

So why does the wood industry use wood for fuel? There are many good reasons to burn wood: wood is a local, renewable resource, it releases less heavy metal, nitrogen and sulphur pollution than fossil fuels when it is burned and burning wood doesn't contribute to global climate change. However, the main reason that mills burn wood is because it is less expensive than the alternatives (eg. fuel oil, natural gas or electricity). Even though wood-burning boilers may be expensive to build and less convenient to operate, the low cost of the fuel makes wood the best option in the long run.

Wood is even cost-competitive on the small scale - homeowners usually can heat their homes cheaply with firewood. Various energy options are sold in different units – natural gas in therms, electricity in kilowatt/hours and oil or propane in gallons, so figuring out the true cost comparison can be tricky. To help make the comparison, the US Forest Service has developed a spreadsheet calculator that can be used to determine the per-unit (BTU) energy costs of various fuel options. Available on the internet at

<http://www.fpl.fs.fed.us/documnts/techline/fuel-value-calculator.pdf>)

You might enjoy plugging in the price you are paying for electricity or natural gas to heat your home and see what you could afford to pay to firewood and still save money.

There are many potential uses for the wood resource that is abundant in Tennessee. Burning wood for a cost-effective and environmentally-friendly fuel is a good one.

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